

PECULIARITIES OF THE DETERMINATION OF THE TEMPERATURE OF A FREELY BURNING ARC DISCHARGE FROM SELF-REVERSED RESONANCE SPECTRAL LINES OF ATOMS.

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Abstract

The results of calculations of the nonuniformity parameter M , used in determining the plasma temperature by Bartels' method, for self-reversed Na I 589. 0/589. 6 nm and Al I 308. 2 nm lines, emitted by an arc discharge burning freely in air, are presented. The calculations were performed for models of the positive column of the arc taking into account the ionization of atoms and the changes in the broadening of the lines in the radial direction. The effect of these factors in calculations of M are discussed.
